



HERITAGE-WTI, INC.  
1250 St. George Street  
East Liverpool, Ohio 43920-3400  
Phone: 330-385-7337  
Fax: 330-385-7813  
Web Site: [www.heritage-wti.com](http://www.heritage-wti.com)

OHSAS 18001: 2007  
ISO 14001: 2004  
ISO 9001: 2008

May 18, 2012

To: Ohio Environmental Protection Agency  
Re: Incident at Heritage – WTI, Inc. on December 17, 2011

During the recent months, we have investigated the incident of December 17, 2011, in order to thoroughly understand what happened and to prevent it from happening again at our facilities and other hazardous waste management facilities. Heritage – WTI, Inc (HWTI) has prepared the following summary from our internal investigation:

#### **Summary of Incident and Waste Stream History**

On Dec. 17, 2011, two employees were transferring the contents of a drum of waste into other, smaller containers to prepare the waste to be fed into the incinerator. During this repackaging procedure, the waste reacted violently. Both employees received severe burns. One employee was fatally injured. The other has been released from the hospital and is still recovering. Immediate suspension of this incineration preparation process went into effect until the investigation is completed. OSHA performed an on-site investigation.

The waste material involved in the violent reaction was shipped under a wastestream approval originally set up in 1999. The wastestream has always been received through an environmental broker. More than 1,000 containers of the approved wastestream have been processed without incident. The waste originally shipped as D001 for flammability. In 2007, the D001 was removed per request of the generator. There had been no indication of wastestream changes from annual wastestream recertifications or other means since 2007.

#### **Post-Incident Discoveries**

Several facts came to light during our investigation with the broker and generator:

- The waste was not generated at the manifested generator's facility, but at the facility of a sister company in another state. This was the first and only shipment to HWTI under this profile that was not actually generated at the manifested generator's facility.
- The manifested generator's original intent was to recycle the material, but later decided against it.
- The original drums were not DOT-shippable, so they were overpacked into 85 gallon drums.
- The particle size of the waste was smaller than normal.

- The constituent range was significantly different from the wastestream information on file at HWTI.
- The drum that reacted on December 17 remained intact and had a "Spontaneously Combustible" label on it even though the outer overpack was labeled as "Flammable Solid."

### Root Cause

Failure of generator, shipper and/or broker to fully understand and/or disclose the physical hazards and chemical composition of the waste stream.

- The wastestream shipped did not conform to the HWTI waste profile.
- The wastestream was identified as a non-hazardous waste, but was indeed hazardous for ignitability and reactivity.
- RCRA codes should have been D001 (flammability) and D003 (reactivity).
- Chemical composition variances of up to 50 percent from the approval the waste was shipped under.
- DOT shipping description was not correct and marking/labeling was inconsistent between inner and outer packaging.
- Material did not conform to our specified packaging guidelines (drum weight exceedence).

### Contributory Causes

- Failure of generator to disclose that the December shipment was of a different nature and from a different generating location than previous shipments.
- Generator and shipper of waste classified and shipped waste in a manner that mischaracterized and/or masked the actual hazards.

### Corrective/Preventive Measures

- HWTI has identified various corrective/preventive measures to address this specific incident and to prevent future incidents. These corrective/preventive measures cover various processes, beginning with the waste approval process to waste preparation processes. The primary objective of these corrective/preventive measures ensure HWTI has full disclosure of the known hazards of the waste stream and generating process from the waste generators so HWTI can make a determination as to whether the material can be handled safely at the facility prior to the waste arriving at the HWTI facility. Therefore, HWTI is in the process of implementing or has implemented significant changes to the waste approval process. HWTI has also completed a Process Hazard Analysis (PHA) of the waste preparation process. Again, HWTI is in the process of implementing or has implemented various changes to the waste preparation process as a result of the PHA. HWTI is in various stages of implementing corrective/preventive measures in an effort to prevent future incidents.

If you have any questions or wish to discuss this in greater detail, please feel free to call me at 330-386-2196.

Sincerely,

  
Carrie L. Beringer

Environmental, Health, & Safety Manager

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(list of containers on the trailer  
remaining from incident)

r\_cont\_wt.4ge

Shipments Received in ARTS

Page no: 1

For Date 12/13/2011 to 12/13/2011

Date: 02/17/2012

Time: 08:15:32

printed on this date &  
Revel by TM

Authorization

Manifest

WStream

PCod Quote

Pg

Ln

S

Typ

Size

Trk/Cont

Sample IdWt lbs Gal

Waste Type

Pick List

\* Incident drums

Company: VEOLIA ES TECHNICAL SOLUTIONS, LLC 81543

2011-12-13 10:20

OX11121301 000167371VES

WStream	PCod	Quote	Pg	Ln	S	Typ	Size	Trk/Cont	Sample IdWt lbs	Gal	Waste Type	Pick List
92796-1	8073	374210	001	001	S	DM	85	1001366822	892		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366823	908		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366824	875		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366825	927		100% solid	REJE1
	8073	374210	001	001	S	DM	85	*1001366826	934		100% solid	REJE1
	8073	374210	001	001	S	DM	85	*1001366827	911		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366828	905		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366829	664		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366830	873		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366831	890		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366832	913		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366833	555		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366834	914		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366835	808		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366836	899		100% solid	REJE1
	8073	374210	001	001	A	DM	85	1001366837	862		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366838	844		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366839	919		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366840	741		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366841	974		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366842	928		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366843	936		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366844	914		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366845	896		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366846	930		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366847	888		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366848	892		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366849	903		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366850	925		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366851	821		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366852	932		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366853	952		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366854	947		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366855	923		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366856	936		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366857	841		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366858	670		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366859	842		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366860	867		100% solid	REJE1
	8073	374210	001	001	S	DM	85	1001366861	891		100% solid	REJE1

these  
6  
were  
splitcause of  
incident  
remaining  
containers  
from the  
palletinci  
occurred  
before  
"split"  
function  
still  
showing in  
the system  
even though  
it was  
consumed  
in the  
incident

Total for w_stream	92796-1	Count	40 Pounds:	35,052	Class 071
Total for manifest	000167371VES	Count	40 Pounds:	35,052	
Total for auth.	OX11121301	Count	40 Pounds:	35,052	

trailer list page 1 of 2

Page no: 2

Time: 08:15:32

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\* plus - 1001368804  
+ 1001368805

Splits created on 12/14 but  
did not end up Fed to incin  
these splits were from another -  
previous - drum  
(not the incident drum)

the splits are on the evidence trailer  
 & so is # 1001366827

that leaves 32 drums trailer list page 2 of 2



MUST SHOW ON FREI

720036

CARRIER

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

AT  
ROCHESTER PA  
FROMDATE  
7/13/2011

CAR OR VEHICLE INITIALS AND NUMBER

COPY

CONSIGNEE TO:  
ATI WAH CHANG  
1600 Old Salem Rd. NE  
Albany, OR 97321

The property below, in apparent good order, except as noted (contents and contents unknown), marked, classified, and destined as indicated below which a carrier being understood throughout the contract as meaning any person or corps of the property under the contract agrees to carry to the usual place of delivery on its route, otherwise to deliver to another carrier on the date to said destination, it is to each party at any time interested in all or any portion of said property, that every set here under shall be subject to all the terms and conditions of the Uniform Dock Lading set forth (1) in Uniform Freight Classification is effect on the date hereof, (2) in the applicable motor carrier classification or tariff if the equipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the form in the classification or tariff which governs the transportation of the shipment and conditions are hereby agreed to by the shipper and accepted for himself and his equipment.

## FREIGHT TERMS

Prepaid Collect Third Party  
Subject to section 7 at Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignee, the consignee shall sign the following statement:  
The carrier shall not hold delivery of this shipment without payment of freight and all other lawful charges.  
Allegany Technologies, Inc.  
Agent or Co:  
For (The signature hereack amount prepaid.)  
Charges Advanced:  
\$

THIS SHIPMENT IS CORRECTLY DESCRIBED, CORRECT WEIGHT IS AS SHOWN SUBJECT TO VERIFICATION BY THE GOVERNING WEIGHING AND INSPECTION BODY ACCORDING TO AGREEMENT.

Allegany Technologies, Inc.

(Signature of consignee)  
If the shipment moves between two ports by a carrier by water the agreed or declared value of the carrier or shipper's weight.  
NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

SHIPPER

Shipper's imprint in lieu of stamp not in part of bill of lading approved by Interstate Commerce Commission.

## KIND OF PACKAGE, DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS

PICKUP AT: ATI Precision Finishing  
499 Delaware Ave  
Rochester, PA 15074DELIVER TO: ATI Wah Chang  
1600 Old Salem Rd. NE  
Albany, OR 97321PICKUP DATE/TIME: 7/13/2011 7:00:00 AM -  
7/15/2011 3:00:00 PM EST

DELIVERY DATE/TIME:

Load Number Item Description  
Comments:  
Pickup Date From: 7/13/2011 7:00 AM EST  
Pickup Date To: 7/15/2011 3:00 PM EST

No. Packages

Zr Grindings- Wht

Drummed Zr  
Grindings

40

40,000 lbs.

Comments:

Sub Total Weight: 48,000 lbs.

TOTAL OVERALL WEIGHT: 48,000 lbs.

Comments: Material must move under Flammable placard and must be totally tarped

MOTOR VEHICLE SHIPMENTS - LOADED AND BRACED IN ACCORDANCE WITH TRUCK DRIVERS INSTRUCTIONS  
CARRIER MUST PROTECT SHIPMENT FROM WEATHER IN TRANSIT

CARRIER (Signature Required)

Date

PER

PLEASE RENDER FREIGHT BILLS TO:

TOTAL P:01

Exhibit D

WCDOT000013  
WC000473

CONFIDENTIAL BUSINESS INFORMATION - DO NOT DISTRIBUTE TO PUBLIC

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number OR0000955849	2. Page 1 of 1	3. Emergency Response Phone (877) 813-0037	4. Manifest Tracking Number 000167371 VES
5. Generator's Name and Mailing Address WAH CHANG - NORTH PO BOX 460 ATTN: RYAN BOHLY ALBANY, OR 973210460		Generator's Site Address (if different than mailing address) WAH CHANG - NORTH PO BOX 460 1600 OLD SALEM ROAD NE ALBANY, OR 973210460			
Generator's Phone: 541 812-7003					
6. Transporter 1 Company Name SAVANNAH TRANSPORT		U.S. EPAID Number K S 0 0 0 7 1 6 8 5 1			
7. Transporter 2 Company Name		U.S. EPAID Number			
8. Designated Facility Name and Site Address HERITAGE WTL, INC. 1250 SAINT GEORGE STREET 330 386-7326 EAST LIVERPOOL, OH 43920		U.S. EPAID Number 0 N D 9 5 0 6 1 3 5 4 1			
Facility's Phone:					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol
X	UN3178, FLAMMABLE SOLID, INORGANIC, n.o.s., (ZIRCONIUM, HAFNIUM), 4.1, III	040 DM		43,180	P
2.					
3.					
4.					
14. Special Handling Instructions and Additional Information ER Service Contracted by VESTS - 1) ERG:133 W.434443 A WTI92796-1					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Officer's Printed/Typed Name FRANK HAMPTON		Signature <i>[Signature]</i>		Month Day Year 12/6/11	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name SAXON SCARLE		Signature <i>[Signature]</i>		Month Day Year 12/11/11	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
18b. Alternate Facility (or Generator) U.S. EPAID Number					
Facility's Phone:					
18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H040 2. 3. 4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a					
Printed/Typed Name Kurt Omer		Signature <i>[Signature]</i>		Month Day Year 12/12/11	

**GENERATOR INFORMATION**

Name: WAH CHANG  
Address (site): \*1600 OLD SALEM ROAD NE ALBANY, OR 97321-0460 UNITED STATES  
Address (mail): PAT MACAULEY P O BOX 460 ALBANY, OR 97321-0460 UNITED STATES  
US EPA ID: ORD050955848 State ID:  
Regulatory Status: LARGE QUANTITY  
Technical Contact: FRANK HAMILTON Phone: (541)926-4211  
Short Name: WCAO

**WASTESTREAM INFORMATION - GENERAL**

Common Name: NON FERROUS METAL FINES & METAL RESIDUE  
Waste Class: 071 - WATER-REACTIVE, FLAMMABLE METAL POWDERS  
Generating Process: MACHINE CONDITIONING  
EPA Source Code: G05 - METAL FORMING AND TREATMENT (PICKLING, HEAT TRE...  
EPA Form Code: W307 - METAL SCALE, FILINGS AND SCRAP (INCL METAL DRUMS)  
Physical State @ 70F: SEMI-SOLID  
Odor:  
Color:  
Density: LB/GAL  
Estimated Annual Volume: 200000 LBS  
Conditional Approval?: N

**MANAGEMENT SYSTEM ASSIGNMENTS**

<u>TSD#</u>	<u>Product Code - Desc</u>	<u>Put Away Area</u>	<u>Process System - Desc</u>	<u>Cont Type</u>
15119 8074	SOL MIX NON MTL DRUM	A GENERAL STORAGE	1251 FRONT WALL	DF, DM
15119 8073	SOL MIX METAL DRUM	A GENERAL STORAGE	1251 FRONT WALL	DF, DM

**EPA HAZARD CODES**

None specified

**STATE HAZARD CODES**

None Specified



## SAFETY INFORMATION

<u>HMIS Information</u>	<u>Description</u>
HEALTH	1 - SLIGHT HAZARD
FLAMMABLE	2@ - MODERATE HAZARD-WATER REACTIVE
REACTIVE	2 - MODERATE HAZARD
PPE	F2 - DUST RESP-NEOPRENE
* = Carcinogen	
@ = Water Reactive	

## COMMENTS

Type Text

IN on hold pending investigation  
PE APRON PPE-F2  
PI THIS MATERIAL NEEDS PACKAGED IN 400 LB CHARGES WETTED WITH OIL.

IN - INTERNAL

PE - PROTECTIVE EQUIPMENT

PI - PROCESS INSTRUCTION

## TRANSPORTATION INFORMATION

Shipping Description: RQ, UN3178, FLAMMABLE SOLID, INORGANIC, N.O.S., 4.1, PGIII, (HAFNIUM, ZIRCONIUM), ERG#133

Label Codes: 4.1 - FLAMMABLE SOLID

## COMMENTS

Type Text

LM NO SAMPLE REQD

LM - LABEL MESSAGE

## SURVEY RESPONSES

## PHYSICAL AND CHEMICAL PROPERTIES.

<u>Question</u>	<u>Reply</u>	<u>Question</u>	<u>Reply</u>
Flash Point	140 to <200	Boiling Point	>100
BTU/LB, range, low value	3000	BTU/LB, range, high value	8000
PH, range, low value	3	PH, range, high value	12
Is the waste pumpable ?	NO	Will heat improve the flow ?	NO
Is this a dust hazard ?	NO		

## ADDITIONAL HAZARDS.

<u>Question</u>	<u>Reply</u>	<u>Question</u>	<u>Reply</u>
Air Reactive	NO	Asbestos	NO
Carcinogen	NO	Gas	NO
Dioxins, Furans, or pre-cursors	NO	Explosive	NO

**ADDITIONAL HAZARDS.**

<u>Question</u>	<u>Reply</u>	<u>Question</u>	<u>Reply</u>
Infectious Agents	NO	Lab Pack	NO
Oxidizer	NO	Pyrophoric	NO
Radioactive	NO	Shock Sensitive	NO
Water Reactive	YES		

**ADDITIONAL REGULATORY INFORMATION.**

<u>Question</u>	<u>Reply</u>	<u>Question</u>	<u>Reply</u>
PCBs ? (If Yes, specify range)	NO	Subject to Benzene NESHAP controls (40CFR61.340-358) ?	Not Applicable

**WTI**

<u>Question</u>	<u>Reply</u>	<u>Question</u>	<u>Reply</u>
Miscellaneous Special Waste	YES		

**CHEMICAL CONSTITUENTS**

Using specific chemical names, list all constituents present in the wastestream. Attach available analyses or Material Safety Data Sheets (MSDSs). Total composition must equal or exceed 100%.

**TYPE - GENERATOR**

<u>Constituents</u>	<u>Range</u>	<u>Result</u>	<u>Units</u>	<u>CAS#</u>	<u>EHS ID#</u>	<u>Date</u>
METAL RESIDUE/METAL FINES CONTAINING:	94 - 99		PERCENT			11-JAN-01
CUTTING OIL	1 - 4		PERCENT			11-JAN-01
HAFNIUM	10 - 25		PERCENT	7440-58-6		11-JAN-01
NIOBIUM	10 - 25		PERCENT			11-JAN-01
TITANIUM	10 - 25		PERCENT	7440-32-6		11-JAN-01
WATER	0 - 2		PERCENT			11-JAN-01
ZIRCONIUM	45 - 65		PERCENT	7440-67-7		11-JAN-01

EHS - Extremely Hazardous Substance

CAS - Chemical Abstracts Service

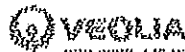
CONSTITUENT RANGES

<u>Constituents</u>	<u>Range</u>	<u>Result</u>	<u>Units</u>	<u>CAS#</u>	<u>EHS?</u> <u>ID#</u>	<u>Date</u>
ASH %	- 50	50	PERCENT	NA		19-OCT-99
HEAT VALUE	8000	8000	BTU/LB	NA		19-OCT-99

EHS - Extremely Hazardous Substance

CAS - Chemical Abstracts Service

# Veolia ES Technical Solutions, L.L.C.



## WASTESTREAM INFORMATION

- ☐ Recertification  
☐ VEOLIA LOCATION  
☐ Invoice Address  
☐ Manifest from - blank if direct

ADDRESS

CITY

ST

Disposal Code

VEOLIA TSDf requested \_\_\_\_\_ Technology requested \_\_\_\_\_ Generator No. 437081 Generator EPA ID ORD050955246

1. Generator Name WAH CHANG - NORTH Generator State # \_\_\_\_\_

Address P.O. BOX 460 (1600 OLD SALEM ROAD NE) State Wastestream # \_\_\_\_\_

City ALBANY State OR Country US Zip 97321 0460

SIC Code 3339 1st NAICS Code \_\_\_\_\_ 2nd NAICS Code \_\_\_\_\_ 3rd NAICS Code \_\_\_\_\_

Source Q09 Origin \_\_\_\_\_ Form W307 System Type \_\_\_\_\_

2. Waste Name NON-FERROUS METAL FINES/METAL RESIDUE Lab or Waste \_\_\_\_\_

3. Process Generating Machine conditioning, grinding, honing, sawing, and extrusion

4. Shipping Name FLAMMABLE SOLID, INORGANIC, n.o.s.

Hazard Class 4.1 UNNA Number UN3178 Pkg Grp III Sub Hxds \_\_\_\_\_ RQ Amt (lbs.) 0

RQ Desc: 1. \_\_\_\_\_ 2. \_\_\_\_\_

DOT Desc: 1. ZIRCONIUM, HAFNIUM 2. \_\_\_\_\_

5. Waste Codes NONE

Wastewater (Y/N) N Sub-Category \_\_\_\_\_

### 6. Physical and chemical

pH Lo 5 Specific Gravity Lo 1.2 Flash Point (F) Lo 140 Water Solubility Lo 0 BTU/lb Lo 3000

pH Hi 9 Specific Gravity Hi 4 Flash Point (F) Hi 200 Water Solubility Hi 0 BTU/lb Hi 4999

#### Solids:

Suspended Lo 0 Settleable (%) Lo 0 Dissolved (%) Lo 0 % Ash Lo 0 Free Liquid (%) Lo 0

Suspended Hi 0 Settleable (%) Hi 0 Dissolved (%) Hi 0 % Ash Hi 0 Free Liquid (%) Hi 0

#### Physical State:

Physical State 1 M - semi-solid

Physical State 2 \_\_\_\_\_

Physical State 3 \_\_\_\_\_

#### Hazardous

Haz. Char. 1 \_\_\_\_\_

Haz. Char. 2 \_\_\_\_\_

Haz. Char. 3 \_\_\_\_\_

Layer B - Blayered

Top B - medium (oil)

Middle D - solid

Bottom \_\_\_\_\_

#### Halogens:

Bromine (%) Lo \_\_\_\_\_ Chlorine (%) Lo \_\_\_\_\_ Fluorine (%) Lo \_\_\_\_\_ Iodine (%) Lo \_\_\_\_\_ Color 1 VAR

Bromine (%) Hi \_\_\_\_\_ Chlorine (%) Hi \_\_\_\_\_ Fluorine (%) Hi \_\_\_\_\_ Iodine (%) Hi \_\_\_\_\_ Color 2 \_\_\_\_\_

Odor Intensity B - mild Contains Used Oil? No HOC < 1000 ppm \_\_\_\_\_ HOC > 1000 ppm \_\_\_\_\_

Description OIL

**7. Chemical Composition:**

Component	Low	High	% PPM/PPB
HAFNIUM METAL, DRY	0	25	%
(NOT LISTED AS RADIOACTIVE IN OUR CHEMICAL DATABASE)			
HAFNIUM METAL, DRY CONTAINED IN METAL RESIDUE	0	25	%
MINERAL OIL AS CUTTING FLUID	1	4	
NIOBIUM POWDER	0	25	
NIOBIUM POWDER, CONTAINED IN METAL RESIDUE	0	25	%
TITANIUM METAL POWDER, DRY OR WET WITH <20% WATER	0	25	%
CONTAINED IN METAL RESIDUE			
WATER	0	2	%
ZIRCONIUM METAL, DRY CONTAINED IN METAL RESIDUE	25	100	%
ZIRCONIUM METAL, DRY, CONTAINED IN METAL RESIDUE	25	100	%

Other

Yes/No

8. Is the wastestream being imported into the USA? No PCB
9. Does the wastestream contain PCBs regulated by 40 CFR? No concentration: 0.00 PPM
10. Is the wastestream subject to the Marine Pollutant Regulations? No
11. Is the wastestream subject to Benzene NESHAP? No Benzene concentration: 0.00 PPM
- If Yes, is the wastestream subject to Notification and Control Reqs? Does it contain >= 10% water? TAB at Facility: 0.00 kg/y
12. Is the wastestream subject to RCRA subpart CC controls? No Vol. Org. Conc., if known: 0.00 PPM
- CC approved analytical method? General Knowledge?
13. Is the wastestream from a CERCLA or state mandated cleanup? No

**14. Container Information (Identify UN container marking if**

Packaging: Bulk \_\_\_\_\_ Type/Size \_\_\_\_\_ Bulk Liquid: \_\_\_\_\_ Type/Size \_\_\_\_\_ Drum: \_\_\_\_\_ Type/Size \_\_\_\_\_

Other: \_\_\_\_\_

Shipping Frequency: Units \_\_\_\_\_ Per Month \_\_\_\_\_ Quarter \_\_\_\_\_ Year \_\_\_\_\_ One Time \_\_\_\_\_ Other \_\_\_\_\_

**15. Additional Information:**

Is analytical or an MSDS available that describes the waste? Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, please attach.

**GENERATOR CERTIFICATION**

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

Frank Hamilton  
NAME (Print or Type)

546-926-4711  
PHONE

6/17/10  
DATE

[Signature]  
SIGNATURE

Site Waste Sup  
TITLE

**FACILITY**

If approved for management, Veolia has all the necessary permits and licenses for the waste that has been characterized and identified by this profile.

TELF PROCESSING USE ONLY: PPE REQUIRED? No DESCRIBE: \_\_\_\_\_

**From:** Eric G Feist [<mailto:eric.feist@veoliaes.com>]  
**Sent:** Thursday, September 22, 2011 12:14 PM  
**To:** Hamilton, Frank  
**Subject:** WTI Load

Will Tuesday October 4<sup>th</sup> work for you for your metal fines?

The 85 gal OP are ok. Any of the fines that are in a 55 DM we will need to cover the material in oil.

Do you need assistance with the overpacking or to oil the metal fines?

Thanks

Eric Feist  
Account Manager Pacific Northwest  
22429 76th Ave. South  
Kent, WA 98032  
206-790-1890 – Cell  
425-272-0777 - Fax



---

**From:** Eric G Feist [eric.feist@veoliaes.com]  
**Sent:** Thursday, July 28, 2011 10:56 AM  
**Subject:** Hamilton, Frank  
Metal fines

Wti can accept this material in 55 gal drums.

Anything over 400 lbs would need to be wetted with oil.

## Hamilton, Frank

---

**From:** Hamilton, Frank  
**Sent:** Tuesday, September 20, 2011 6:54 AM  
**To:** Eric G Feist  
**Subject:** RE: Wti shipment

\$7

The contents of this message have been archived.  
Click this link to retrieve the original message:

<https://archive.wahchang.com/aaweb/msg.aspx?g=406b49e3-584a-4386-aeb4-bf432f0ebd7c>

I have about 45 of the small 30 gallon drums of the metal fines that are ready to go.

I also have about 40 drums of metal fines in old 55 gallon barrels that I had talked to you about a few months back. You mentioned that WTI had said that they would accept the volume of this material in 55 gallon drums. These barrels are in bad shape and will need to be repackaged or over packed. I think an over pack is my first option and repackaging is my second option. Will WTI accept an over pack drum of this material?

On another note; I have an IPA drum that has a date coming up in the second week in Oct. (Possible a milkrun?)

Frank Hamilton  
Supervisor, Solid Waste

ATI Wah Chang  
1600 NE Old Salem Highway  
Albany, OR 97321  
[www.ATImetals.com](http://www.ATImetals.com)

T: 541-619-1154  
F: 541-924-6874

-----Original Message-----

From: Eric G Feist [<mailto:eric.feist@veoliaes.com>]  
Sent: Monday, September 19, 2011 5:31 PM  
To: Hamilton, Frank  
Subject: Wti shipment

Frank - how are you looking for your metal fines?

---

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Eric Feist  
Account Manager Pacific Northwest  
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# ATI WAH CHANG ANALYTICAL WORKSHEET

## UN Test N.1

Analyst(s) JBKSTK Date(s) 11/27/2011

Lab MISC  
WS # 2 -11

Determination: Metals & Metal Powders  
Test Method: 33.2.1.4

Sample Number: EC 87130 Sample Source: ATI Precision Finishing 212 Spawf 11/24/21

Description: very fine soapy wet metal shavings in tangled mats

Particle Size: >10 mesh

Air Flow (m/s): 0.8 Temperature (deg C): 20 Preburn Time (sec): 300

Screening Test: 33.2.1.4.3.1 (200 mm < / = 1200 sec.) 7 sec.

Substance ( Does / Does Not ) Ignite and propagate by burning or smoldering.

Burning Rate Test: 33.2.1.4.3.2

Length (mm)	Time (sec)	80 mm	130 mm	140 mm	180 mm	250 mm
1. <u>100</u>	<u>7600</u>	<u>58 mm / 110 sec</u>	<u>9/50</u>	<u>600 sec.</u>		
2. <u>100</u>	<u>7600</u>	<u>125 / 600</u>	<u>(68 mm / 5 sec)</u>			
		<u>J.B. Kinsale 11/27/11</u>				
3. <u>100</u>	<u>7600</u>	<u>2</u>	<u>5</u>	<u>5 / 600</u>		
4. <u>110</u>	<u>7600</u>	<u>95</u>	<u>95</u>	<u>96 / 600</u>		
5. <u>100</u>	<u>7600</u>	<u>6</u>	<u>7</u>	<u>7 / 600</u>		
6. <u>100</u>	<u>7600</u>	<u>173</u>	<u>175</u>	<u>175 / 600</u>		

Substance ( Is / Is Not ) a readily combustible solid of Division 4.1.

Packing Group Assignment: None

NOTE: The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PZ King 11/27/11  
Signature Date  
PZR

Exhibit C

WCDOT000007  
WCD000467

## **SHEWCZYK Susan**

---

**From:** Morford, J. Mark [JMMORFORD@stoel.com]  
**Sent:** Thursday, May 03, 2012 11:11 PM  
**To:** SHEWCZYK Susan  
**Cc:** James H. Denham (jim.denham@ATImetals.com); Lee Weber (lee.weber@ATImetals.com); Ryan M. Bodily (ryan.bodily@ATImetals.com); Lauren McAndrews (Lauren.McAndrews@ATImetals.com); Tichenor, Geoffrey  
**Subject:** Notice of Removal of drums at WTI

Susan,

Your information request asks Wah Chang to provide you 10 days advance notice of when and how it will arrange to move the drums at WTI. Now that you are in the loop with EPA, I am hoping that you are satisfied that you know what is going on. We would prefer not to wait 10 days between the time we have a plan approved by EPA and the date we move the waste. Therefore, I am providing you this generalized notice today even though we do not yet know all the details of the project.

The wastes will be prepared for shipment by Clean Harbors. The wastes will be shipped to Chemical Waste Management Northwest's facility in Arlington. They will be prepared and transported according to plans approved in advance by EPA Region V. The exact date of shipment will depend on the date EPA approves the plans and how quickly Clean Harbors can mobilize and actually prepare the wastes for shipment. It will also depend on when DEQ approves CWMNW's proposed treatment method for the wastes. I would appreciate your acknowledgement of this email as the notice requested in your information request. We will keep you informed regarding the final plan and other details as those are provided to EPA.

Mark

**J. Mark Morford**

**STOEL RIVES LLP** | 900 SW Fifth Ave, Suite 2600 | Portland, OR 97204-1268

Direct: (503) 294-9259 | Mobile: (503) 319-1973 | Fax: (503) 220-2480

[jmmorford@stoel.com](mailto:jmmorford@stoel.com) | [www.stoel.com](http://www.stoel.com)

Gold Certified Member, Stoel Rives "Go Green" P<sup>2</sup> Sustainability Program



# Oregon

John A. Kitzhaber, MD, Governor

## Department of Environmental Quality

Western Region Salem Office

750 Front Street NE, Suite 120

Salem, OR 97301-1039

(503) 378-8240

FAX (503) 373-7944

TTY 711

April 13, 2012

Mr. Lee Weber  
Director of Environmental Services  
ATI - Wah Chang  
1600 Old Salem Road  
PO Box 460  
Albany, Oregon 97321-0460

Oregon Revised Statute (ORS) 466.195 provides that any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous waste, shall upon request of any officer, employee or representative of the Department of Environmental Quality, furnish information relating to such waste and permit such person at all reasonable times to have access to and to copy all records relating to such waste. Pursuant to the authority of ORS 466.195, the Department of Environmental Quality is hereby requesting both general information and specific information pertaining to manifest # 000167371, dated December 16, 2011, which referenced waste profiles 92796-1 and/or 434443.

General Information Requests. For all solid waste generated at the Wah Chang facility, please provide full documentation related to:

- 1.) All exemptions and exclusions claimed by the Wah Chang facility under 40 CFR 261.4(a)(17) [Oregon Administrative Rule (OAR) 340-102-0011].
- 2.) All solid waste determinations for recycled materials under 40 CFR 261.2 through 261.6 [OAR 340-102-0011].
- 3.) A list of all by-products, wastes, or other secondary materials which are generated on-site and are recycled in any manner, including a physical and chemical description, point of generation, a description of the process that produces the recycling product, how the material is managed until recycling is complete, and any analytical information (including but not limited to results from WC mist and immersion testing and friction testing) for ignitable or reactive waste testing.
- 4.) A list of offsite generators, marketers, brokers and/or producers which have sent byproducts, co-products, or recycled media to ATI Wah Chang since January 2010. For each such shipment, provide the generating facility; a description of the process from which the material was generated; copies of the characterization profile, manifest and other documentation associated with the shipment; and any analytical results developed by Wah Chang or any other party regarding these materials.
- 5.) How material which is to be recycled is shipped to or from the Wah Chang facility. This may include, but is not necessarily limited to, trip tickets, bills of lading, manifests and other information.
- 6.) A copy of the Wah Chang facility's current Contingency Plan.
- 7.) A listing of any waste sent by ATI to AL Solutions in New Cumberland, WV since January 2009.

Specific Information Requests. In regards to the forty (40) drums listed on manifest # 000167371 using profile 434443 and 92796-1, provide answers to each question below including all documentation for each question individually.

Documentation should include: where the drums were generated; process generating the media; drum number(s); name and address of transportation carriers; transfer destinations; repackaging information; storage locations; drum description; dates; manifests; bills of lading; receipts; billings; weights; labeling;

placarding; trip tickets; HW records; field logs; emails; photographs; and any other documents in reference to the forty drums listed on the manifest described above.

**1)** Please provide a list of the drums transported from ATI Wah Chang to WTI Heritage in December 2011 by listing the drum, drum number, description of contents, description and condition of the metal drum, whether it was overpacked, and if the metal drum was immersed in oil inside the overpack. Please provide this information in table form with the documents behind the table specifying which drums the supporting documents pertain to.

**2)** It is our understanding that there is an agreement between ATI-Wah Chang and ATI-Precision Finishing, where the zirconium fines and grindings are under the control of ATI-Wah Chang, and that ATI-Wah Chang determines where these materials go for recycling. Please provide the following information.

- a) A copy of any and all agreements, including supporting documentation, between ATI-Wah Chang and ATI-Precision Finishing.
- b) Provide all documentation that describes how often and how much recycled material (container numbers, total weights) that was shipped directly from ATI Precision Finishing Rochester, PA to other facilities for recycling/reclamation from January 2010 until present.
- c) Is there a way to correlate the containers to the shipping documents, such as numbers, weights, designating markings, or any other method? Please provide this documentation and explain the correlation.
- d) Were any of the drums listed on manifest #000167371 shipped from Precision Finishing to another facility (either a recycler, or another one of their companies) and then returned to Rochester prior to shipment to ATI Wah Chang? If so, provide all documentation.
- e) Were any zirconium fines and/or grinding material generated at any ATI facility, within the past three years present at any facilities where there was a fire, explosion or release? Discuss where it was generated and when and where the fire, explosion or release occurred.
- f) Were the 40 drums on manifest #000167371 the same containers received at Wah Chang from Rochester, PA? Where were the forty drums on manifest #000167371 generated from and where were they stored prior to coming to ATI Wah Chang? Were the 40 drums on manifest #000167371 taken anywhere else prior to coming to ATI Wah Chang? Did the forty drums listed on the July shipping document from ATI Precision Finishing to ATI Wah Chang go anywhere else or were the drums stored anywhere else? Were the forty drums on manifest #000167371 stored at ATI Wah Chang and, if so, for how long? When were they overpacked and why?

**3)** The 40 drums were shipped from ATI Precision Finishing to ATI Wah Chang on or about July 2011.

- a) Were the drums on the July 2011 shipping document actually generated and placed into overpack drums at ATI Precision Finishing or at ATI Wah Chang? Where were they generated? Are these the same 40 drums on manifest #000167371 or had those initial drums been consolidated with others? If the drums were consolidated, explain by drum number what was included in each drum.



- b) When these containers were received from Precision Finishing at ATI Wah Chang, what was the condition of the containers? Please provide photos, analytical, documentation, sample results, etc. for each drum.
  - c) How and where were the containers stored at ATI Wah Chang? Provide inspections and photos or other documentation about the storage and condition of the drums.
  - d) When was Veolia first contacted by any ATI company about the containers on the July 2011 shipping document? Provide documentation.
  - e) The Department understands that the 40 drums listed on manifest #000167371 were not in good condition and required overpacking. How and when did the drums come to not be in good condition?
- 4) ATI Wah Chang received the 40 drums listed on manifest #000167371 in order to evaluate the material and determine whether the material could be reused or recycled.
- a) What processes or sampling was conducted or attempted to make this determination? Provide documentation.
  - b) Provide analytical results including QA/QC, all profiles, and inspection documentation specific to the 40 drums listed in manifest #000167371.

5) Provide all shipments (shipping documents, trip tickets, manifests, etc.) for shipments that Veolia arranged to leave ATI Precision Finishing Rochester, PA from January 2010 until present.

Those records should include:

- a) All versions of all profiles set up from both Precision Finishing Rochester PA and ATI Wah Chang, through Veolia (formerly Onyx).
  - b) All email between ATI Wah Chang and Veolia regarding the 40 drums on manifest #000167371 including condition, size, and material. All emails, letters, and other documentation between ATI Wah Chang and Precision Finishing Rochester, PA regarding these containers.
  - c) All emails, letters, and other documentation between Precision Finishing Rochester, PA and Veolia regarding the 40 drums listed on manifest #000167371.
- 6) In reference to manifest #0001667371 using profiles 434443 and 92796-1
- a) Describe how and why the decision was made to transport the 40 drums on a hazardous waste manifest (manifest #000167371) if the waste profile used indicated the contents were non-hazardous?
  - b) Why were the drums in 55-gallon containers when WTI specifically required a maximum of 30 gallons and/or 400 pound per container?

7) It is our understanding there were two shipments being contemplated prior to sending the 40 drums on Manifest #000167371. They included forty 30-gallon containers and forty 55-gallon containers of metal fines that were being discussed in an 09/20/2011 e-mail between Eric Feist, Veolia Environmental Services, and Frank Hamilton, ATI-Wah Chang.

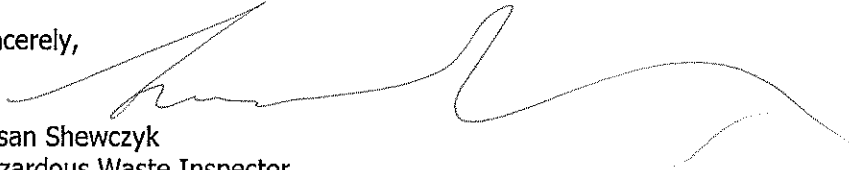
- a) Were these loads consolidated, sent together, or sent at different times to WTI Heritage? Please provide documentation for both loads if not the 40 drums listed on manifest #000167371. If they were the drums listed on manifest #000167371, provide the descriptions, drum numbers and which load they came from.
- 8) Please provide a copy of the contracts, agreements, and other documentation regarding the services provided by Veolia ES Technical Solutions, LLC (formerly Onyx) to ATI. This should include, but is not limited to, documentation of the roles and responsibilities of the parties.
- 9) Please notify the Department ten (10) calendar days prior to moving the 32 drums from WTI Heritage to any other location. In your notification please include when, where and how ATI Wah Chang intends to send the drums that are being stored at WTI Heritage.

**The Department requests a written response by April 30, 2012.** Should you have any questions about the content of this letter, feel free contact me in writing or by phone at 503-378-5310.

Please send two copies of your response to:

Susan Shewczyk  
Department of Environmental Quality  
750 Front Street NE., Suite 120  
Salem, OR 97301-1039

Sincerely,



Susan Shewczyk  
Hazardous Waste Inspector  
Western Region